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Dated: October 28, 2002

Signature: [Signature]
(William C. Geary III)

AF/3764
Docket No.: 022956-0114
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Mark A. Johansen, et al.

Application No.: 09/086,508

Group Art Unit: 3764

Filed: May 28, 1998

Examiner: M. Brown

For: BONE ANCHOR AND DEPLOYMENT
DEVICE THEREFOR

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TECHNOLOGY CENTER R3700

TRANSMITTAL LETTER

Box AF
Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Enclosed are the following items for filing in connection with the above-referenced Patent Application:

1. Reply Brief; and
2. Return Postcard.

The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 141449, under Order No. 022956-0114. A duplicate copy of this paper is enclosed.

Dated: October 28, 2002

Respectfully submitted,

By [Signature]
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PATENT

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In the Matter of the

Application of : Johansen, *et al*

Serial No. : 09/086,508

Filed : May 28, 1998

Entitled : BONE ANCHOR AND
DEPLOYMENT DEVICE THEREFOR

Docket No. : 22956-114

Group Art Unit: 3764

Examiner: M. Brown

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10-28-02
Date of Signature and Mail Deposit

By:

William C. Geary III
Reg. No: 31,359
Attorney for Applicant(s)REPLY BRIEF

Dear Sir:

This is in reply to the points of argument raised in the Examiner's Answer mailed August 29, 2002. Appellant respectfully requests that the arguments presented below be considered in connection with this appeal.

I. Introduction

Claims 1-6 and 10-21 are currently pending, and stand rejected as being obvious in view of the following reference:

U.S. 4,012,984 Matuschek

The Examiner fails to give appropriate weight to certain claim limitations and erroneously interprets the Matuschek reference while concluding that Matuschek renders obvious the pending claims.

The claimed bone anchor is totally dissimilar to the rivet and "pressure washer" disclosed by Matuschek. Further, the structure and function of the washer that is an element of the claimed bone anchor is in no way similar to the "pressure washer" disclosed by Matuschek. The patentability of the pending claims should be clear based on the arguments that follow, as well as those made in Appellant's Brief.

II. The Examiner Relies on His Definition of "Float" to the Exclusion of Other Relevant Claim Language

Claim 1 is directed to a bone screw having structural and functional features that simply are not present in Matuschek. Claim 1 requires, among other things, a washer that floats at *the end of the expandable sleeve which first receives the rivet*. And, as the rivet forces the sleeve to expand, the *head of the rivet must force the washer into contact with tissue* adjacent to the bone. When the washer contacts tissue, it must do so at an angle that conforms to an angle of a surface of the bone.

What this claim language requires is a structure in which the washer is received on an expandable sleeve and positioned between tissue (i.e., an item to be secured) and the head of the rivet. The Examiner relies on a definition of "float" that takes into account only the longitudinal and angular motion of which the washer is capable while ignoring the structural relationship of the washer with respect to the head of the item to be secured.

The limitations of independent claims 5 and 10 likewise require the washer to be in a position between the head of the rivet and the tissue (or other item) to be secured.

The Examiner's Answer focuses on the term "float" while ignoring the other structural and functional claim language that requires a bone anchor having a structure in which the washer component is positioned between an item to be secured (tissue) and the head of the rivet. The floating nature of the washer is a significant aspect of the claimed invention, but it cannot be evaluated to the exclusion of other features of the claimed invention. Matuschek fails to disclose or suggest any structure in which the head of the rivet forces the washer into contact with an item to be secured.

III. The Examiner Misinterprets the Structure and Function of the Matuschek Rivet and Its Pressure Washer

As discussed above, independent claims 1, 5, and 10 all require a bone anchor having a structure in which (1) the head of a rivet forces a washer into contact with an item to be secured (tissue) and (2) the washer is able to "float" longitudinally and angularly when securing the item (tissue).

The Examiner makes several erroneous statements on page 3 of the Examiner's Answer. In response to Appellant's argument that Matuschek's disclosure does not permit Matuschek's pressure washer to be positioned below the head of the rivet, the Examiner states that Matuschek discloses that "the washer (12) [sic, 13] conforms to the surface (16)." This statement is incorrect because Matuschek's washer (13) does not conform to the surface (16); it merely rests atop the rivet as shown in Figures 1 and 2 without contacting surface 16.

In any event, it is irrelevant whether the washer conforms to surface 16. The surface 16 as shown in Matuschek's Figure 2, is analogous to tissue in the claimed invention since it is sandwiched or secured by the head of the rivet. The washer 13 disclosed by Matuschek plainly is disposed *above* the rivet head and it is *not in contact with the surface to be secured by the rivet* – it only rests on top of the rivet head. In this position the washer 13 cannot be compressed by the rivet head against the surface to be secured.

The pending independent claims all require that the head of the rivet "force the washer into contact with tissue" (claim 1); that the rivet "secure the floating washing" (claim 5); and that "the head of the washer be adapted to sandwich the washer" (claim 10). Such a structure simply is not disclosed or suggested by the Matuschek reference, which, as noted above, only discloses its pressure washer to be above the rivet head so that it cannot be forced by the rivet head into contact with the item to be secured by the rivet.

The Examiner also argues:

Appellant argue that the washer disclosed in Matuschek is above the head, so consequently the washer (can not be sandwiched between the bone) [sic]. However, the washer can be located at any position on the threaded stem (6). Since the bone can not be claimed it does not matter if the washer is sandwiched between the bone and the head of the rivet.

Examiner's Answer, pp. 3-4.

While it is true the "pressure washer" of Matuschek can be located at any position on the threaded stem, the Examiner fails to realize that that the threaded stem of the Matuschek system is *above* the rivet head. Figures 1 and 2 unambiguously illustrate that Matuschek's pressure washer is above the rivet head and that it is not compressed against the item to surface 16, which is the item to be secured by the rivet head. Thus, the location of the washer *along the threaded stem* is irrelevant because its position *above* the rivet head prevents it from being able to secure surface 16.

The Examiner's Answer further notes:

Appellant argues that the washer disclosed in Matuschek is not secured by expansion of the sleeve. However, Matuschek clearly discloses the head expands causing the washer to secure against a surface.

Examiner's Answer, p. 3.

It is clear that the Examiner has misinterpreted the reason that the pressure washer is used in Matuschek. The pressure washer is *only* used to facilitate the deployment of the rivet as it contacts the underside of the deployment tool and the topside of the rivet head. The pressure washer does not secure any mating surface after deployment of the rivet. The only surfaces contacted by the pressure washer are the underside of the deployment tool and the top of the rivet head. And this contact is *only* maintained while the rivet is being deployed. Thus, the Examiner is incorrect when he states that expansion of the rivet head causes the washer to secure against a surface.

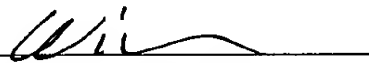
There is no use for the pressure washer in Matuschek once the rivet is deployed as only the rivet head sits flush and secures the surface 16 that it contacts. Following deployment of the rivet there is no need for the pressure washer. Thus, the deployment tool cuts the stem and the washer falls away and is irrelevant to the clamping of any of the surfaces joined together. This proper understanding of the correct structure and function of the Matuschek system makes it clear that there can be no motivation to alter Matuschek's teachings in an attempt to argue that the claimed invention is obvious.

IV. Conclusion

This Reply Brief and the Appellants' Appeal Brief demonstrate that the subject matter of the pending claims distinguishes over the cited references. Accordingly, Appellants respectfully requests that the Examiner's rejection be reversed and that the pending claims be allowed.

Respectfully submitted,

Date: 10-28-02


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